Joint Capabilities Integration and Development System (JCIDS) UPDATE

Changes, January 2012

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Major Criticisms of the JCIDS Process:

- Solution development and delivery are not timely

- Decisions are made late to need or with poorly scoped information

- Process is complex, cumbersome and too document-centric

- Lacks mechanisms to focus review across portfolios

- Does not control "requirements creep"

- Does not include key customers (Combatant Commands (CCMDs)) in the decision process

- Does not have tracking mechanisms to trace developments from gap identification through solution fielding

- Title 10 Responsibilities (as modified by 2009 Weapon System Acquisition Reform Act and 2011 National Defense Authorization Act)
  - The Joint Requirements Oversight Council (JROC) shall assist the Vice Chairman, Joint Chiefs of Staff (VCJCS)...
    - In making cost, schedule, and performance trades
    - In prioritizing joint military requirements
  - The JROC must...
    - Consider input from Combatant Commanders on joint requirements
    - Consider cost, schedule and performance tradeoffs in establishing requirements
    - Set an Initial Operational Capability (IOC) schedule objective for each requirement
- All the Above Emphasized in the JROC Charter (CJCSI 5123 series)
- More Than Any Other Body,

- Construct Ineffective; Does Not Encourage/Promote Incisive Questions/Discussions

    - Little consideration of cost/schedule/performance tradeoffs

    - No prioritization within and across portfolios…little to no risk analysis

    - Document and process intensive -- bureaucratic and time consuming

    - Little impact on shaping the force

- Congressional Question for the Record (GEN Dempsey Confirmation Hearing)

    - "General Dempsey, what's the remedy for Admiral Mullen's belief that DoD has 'lost the ability to prioritize, to make hard decisions, to do tough analysis, to make trades'?"

- JROC Criticisms (Defense Science Board, Defense Business Board, Government Accountability Office,…)

    - Not making the hard decision regarding cost/schedule/performance

    - Perceived as not timely and too document centric

<u>Take the Lead in Shaping the Force</u>:

- Debate the difficult issues and make difficult choices <u>earlier</u>

- Better upfront fidelity on cost/schedule/performance <u>tradeoffs</u>

- More <u>analytic</u> rigor and risk/portfolio analysis

- Stronger emphasis on <u>prioritizing</u> requirements/ capabilities

- More dynamic/iterative process throughout a program's <u>lifecycle</u>. (Revisit as necessary… strategy shifts, threat changes, etc.)

<u>Create a More Dynamic and Iterative Process… Make Difficult Choices Throughout the Requirements Process Continuum!!</u>

- <u>Limit the Audience</u> so Determinative Discussion/ Decisions can be Made
  - More Tank-like
  - JROC Principals+1, Combatant Command (CCMD) Principals+1
  - Statutory Advisors or their Deputy:
    - Under Secretary of Defense (Acquisition, Technology & Logistics) (USD(AT&L), Under Secretary (Policy) (USD(P), Under Secretary (Comptroller) (USD(C), Director, Cost Assessment & Program Evaluation (CAPE), and Director, Operational Test & Evaluation (DOT&E)
  - Joint Staff J-7
  - Functional Capability Board (FCB) Chair
  - Minimal others by invitation only…

- <u>Cost vs. Capability vs. Risk</u> – Better Upfront Analysis of Alternatives
  - FCB Review of Analysis of Alternatives (AoA) prior to Milestone A
  - Highlight non-materiel approaches as alternative or in conjunction with materiel solutions
  - Tee up the appropriate debate
    - Tougher decisions on the 80% solution (i.e. knee in the curve)
    - More portfolio analysis to determine risk

- Consolidated Four Instructions Into Two and JCIDS Manual

  CJCSI 5123 (JROC Charter) and CJCSI 3170 (JCIDS), 10 Jan 2012

  JCIDS Manual, 19 Jan 2012

  Cancelled: CJCSI 3137 (FCBs) and CJCSI 3470 (JUONs)

- Adjusted JROC Venue to be More Tank-like with FCBs Briefing Issues and Providing Portfolio-Level Assessment

  Incorporated SAP Aspects into the discussion

- Requires FCB Joint Prioritization of all Capability Requirements Within Their Portfolio

- Stand Up of the SAP Integration Group to Comprehensively Integrate Requirements/Capabilities and Provide

- Validation Decision Considers Cost, Schedule, Performance and Quantity Targets in JROC Memoranda (JROCMs) as Appropriate with Expanded Tripwire Process

- Clarified the Ability of the JROC to Call for a Review of Previously Validated Requirements/Programs

- Mandated Shorter Document Lengths

- Applied "Information Technology Box" (IT Box) Construct to Initial Capabilities Documents (ICDs) – Information System (IS) ICD, to Allow Greater Flexibility and Response to Evolving Technologies

- Require Studies Notification and Repository

- Use of Capability Development Tracking & Management (CDTM) Tool for Document Generation (exceptions: Information Systems Initial Capabilities Document (ICD), Urgent Operational Needs documents, and above SECRET documents).

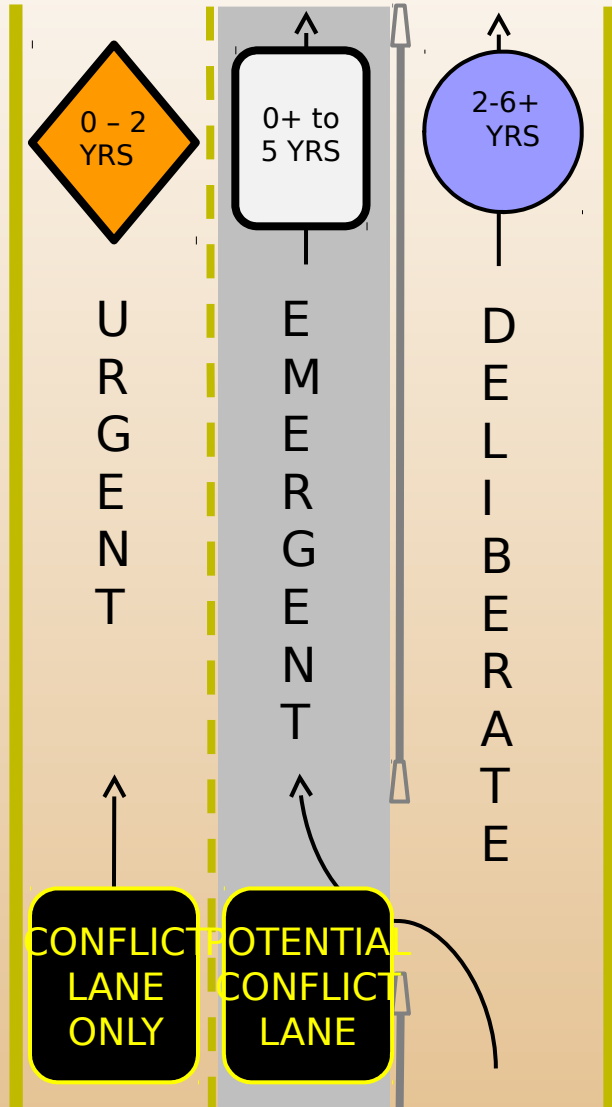- Formalized Capability Gap Assessment (CGA) Process – Review and Assessment of CCMD Integrated Priority Lists (IPLs) by FCBs

- Incorporates Pre-Milestone A Review of AoA Results in Support of Providing Cost/Schedule/Performance Recommendations to the Milestone Decision Authority (MDA)

- Requires Draft Capability Development Document (CDD) (Component-Level; Not Submitted to Joint Staff) to Support Technology Development Phase

- Greater J-7 Role to Emphasize Non-Materiel Solutions and Considerations to Capability Gaps

- Streamlines Joint Staff Procedures and Timelines by 50% to Increase Effectiveness and Responsiveness of the Requirements Development Process

- Provides Three Lanes to Requirements Development to Respond to Capability Gaps within Acceptable Timeframes and Risks…Deliberate, Urgent, and Emergent

"Keep right, except to pass"

0 – 2 YRS	0+ to 5 YRS	2-6+ YRS
U R G E N T	E M E R G E N T	D E L I B E R A T E

CONFLICT LANE ONLY

POTENTIAL CONFLICT LANE

- **Deliberate Requirements**
  - Service, CCMD or Agency Driven
  - Traditional route for capabilities that require significant tech development and/or are not urgent or compelling in nature

- **Emergent Requirements**
  - CCMD Driven
  - Supports accelerated acquisition of capabilities needed for an anticipated or pending contingency operation
  - VCJCS verifies, JCB or JROC validates

- **Urgent Requirements**
  - CCMD Driven
  - Urgent and compelling to prevent loss of life and/or mission failure during current operations
  - Require little tech development and can be resolved in less than two years
  - J-8, Deputy Director for Requirements (DDR) validates

Some charts have additional information in notes pages

Urgent Situations (Joint Urgent Operational Need (JUON))

- Ongoing conflict or crisis
- Failure to act will result in:

    Direct enemy-action related loss of life and/or

    Critical mission failure

- JUON Validated by J-8, DDR
- *Staffing goal of 15 days*

## Emergent Situations (Joint Emergent Operational Need (JEON))

- Anticipated or pending contingency operation
- Must act before operations commence to avoid:

    Enemy-action related loss of life and/or
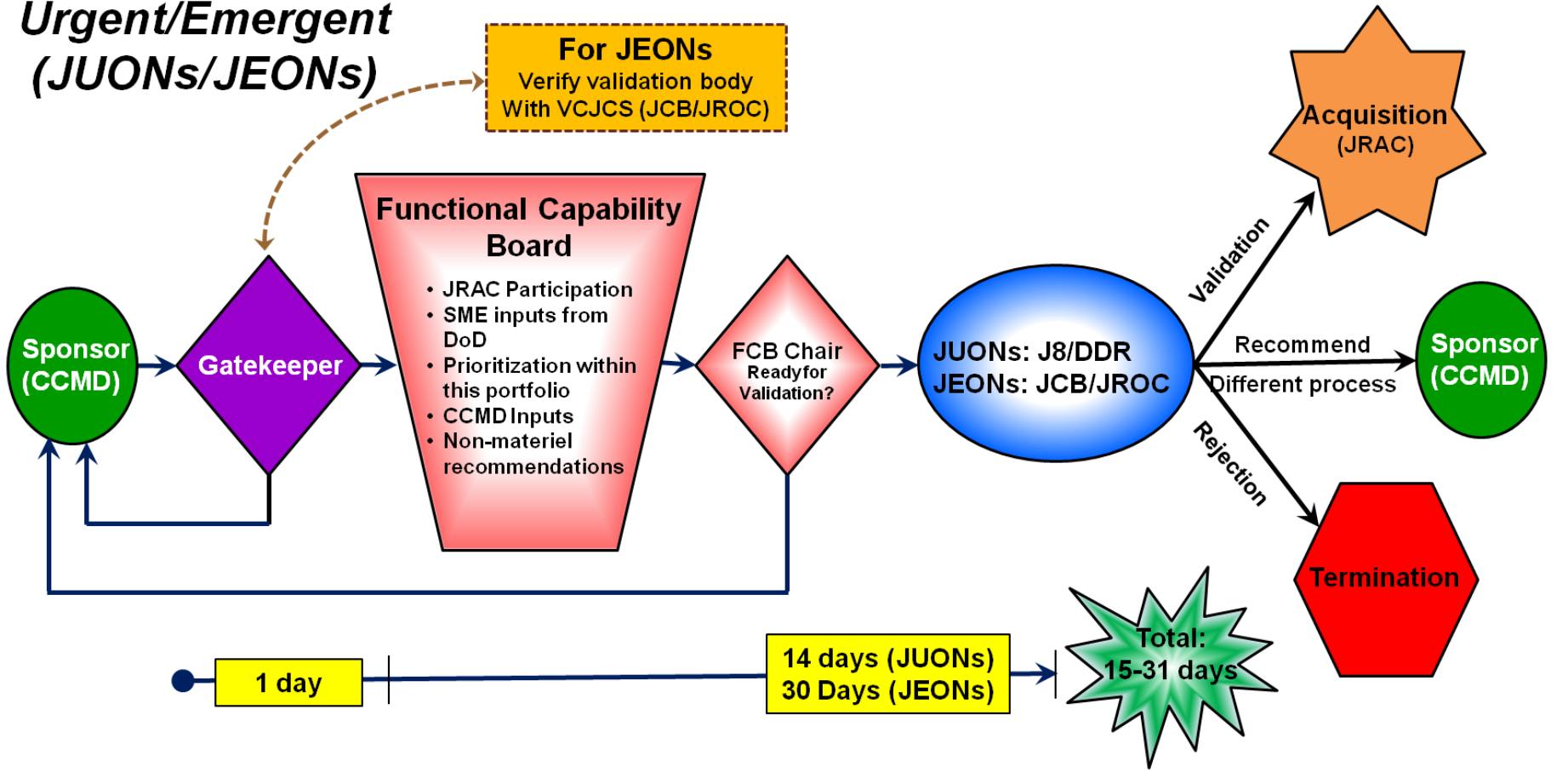   Critical mission failure

- Must be verified by VCJCS
- validation authority, JCB or JROC

Sponsors must provide an assessment of operational utility within 90 days of initial fielding (format in JCIDS Manual)
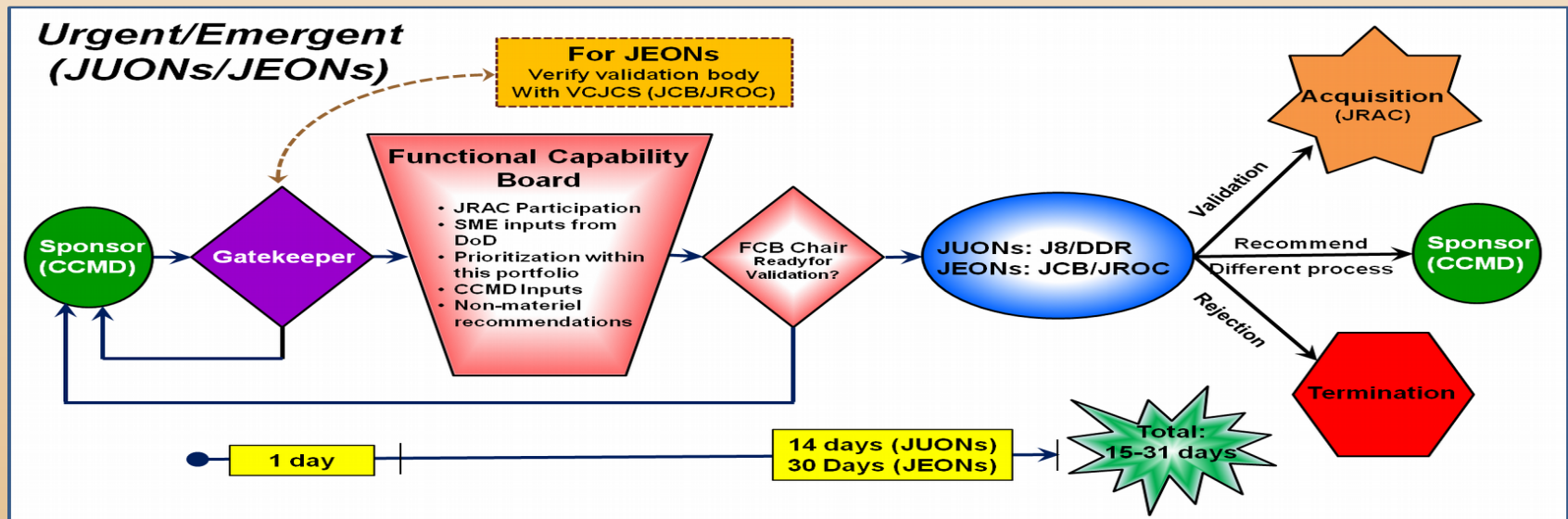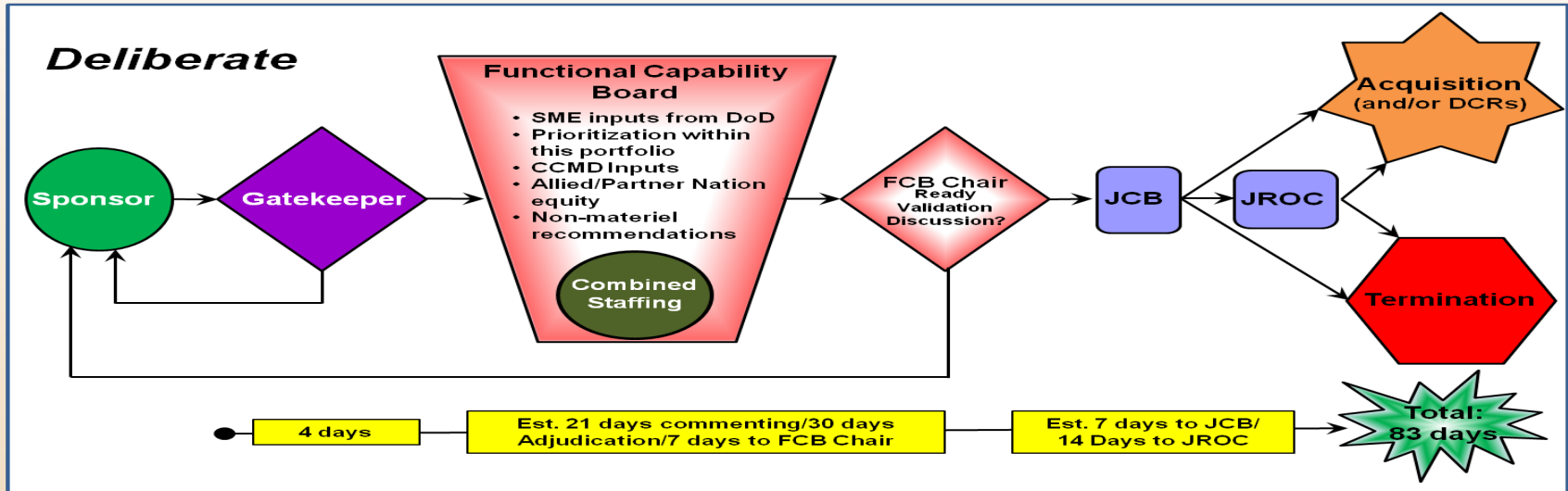
- Each FCB Will Establish Joint Priorities for all Capability Requirements Submitted for Their Portfolios in ICDs, JEONs, JUONs, or DoD Component UONs

- Successor Documents – CDDs, CPDs, and Joint DOTmLPF-P Change Recommendations (Joint DCRs) Do Not Require Additional Prioritization Unless Submitted Without a Preceding ICD

- Joint Priorities are Established During the FCB JCIDS Document Staffing Process

- Sponsor Priorities *"will not be considered during FCB assessments of joint priorities"*

DOTmLPF-P: Doctrine, Organization, Training, materiel, Leadership & Education, Personnel Facilities and Policy

Some charts have additional information in notes pages

- JROC/JCB Tripwire is a JROC Process Established to Review JROC and JCB Interest Programs That Deviate From Cost, Schedule, or Quantity Targets Established at the Time of Validating CDDs or Capability Production Documents (CPDs).

- Programs Must Return to the JROC or JCB for Revalidation if they Experience:

  Cost. Cost growth equal to or greater than 10 percent over their current baseline or 25 percent over their original baseline as defined in the Acquisition Program Baseline (APB).

  Schedule. Schedule slip for Initial Operational Capability (IOC) or Full Operational Capability (FOC) equal to or greater than 12 months from IOC and FOC targets set in the validation JROC Memorandum (JROCM).

  Quantity. Reduction in end-item quantities equal to or greater than 10 percent from a quantity target set in the validation JROCM.

- Lead FCB Initiates a Tripwire Review Based Upon First Knowledge of Cost, Schedule, and/or Quantity Changes Reaching the

- JCIDS Manual Describes JCIDS Interaction with the Following processes.

  - Integrated Priority Lists (IPLs)/Capability Gap Assessment (CGA)

  - JROC/JCB Tripwire

  - Nunn-McCurdy Cost Breaches

  - Major Automated Information System (MAIS) Critical Change Reports

  - Program and Budget Review

  - Chairman's Program Recommendation/Assessment

  - Chairman's Risk Assessment

  - Capability Portfolio Management

- Post-Validation Processes and Interactions are Summarized for Each Phase of the Acquisition Process

- All – Additional Net-Ready KPP Architecture Products Required IAW CJCSI 6212.01 & DoDAF 2.0. Link to Architecture Repository for All Except OV-1.

- Page Count Constrained: ICD – 10 Pages; DCR – 30 Pages; CDD – 45 Pages; CPD – 40 Pages (Page Count Includes Appendix A (Operational Viewpoint 1 (OV-1)), Does Not Include Appendix C (Acronym List) and Appendix D (Glossary)

- DCR, CDD & CPD – Added "Summary of Resources Required"

Resources Required	FY xx (e.g. 12)	FY xx (e.g. 13)	FY xx (e.g. 14)	FY xx (e.g. 15)	FY xx (e.g. 16)	FY xx (e.g. 17)	FYDP Total	Life Cycle Cost
O&M								
RDT&E								
Procurement								
Personnel								
MILCON								
Total Funding								

Some charts have additional information in notes pages

- Force Protection KPP (all manned systems)

- Survivability KPP (all manned; may be applicable to unmanned)

- Sustainment KPP (all ACAT I)

  Materiel Availability

  Operational Availability

 Supporting KSAs

  Materiel Reliability

  Operation & Support Costs

- Net Ready KPP (all IS & NSS)

- Training KPP (all ACAT I)

- Energy KPP (all where provisions of energy impact operational reach, or protection of energy infrastructure or energy resources is required)

No change

All O&S costs now included

Major changes

No longer termed "selectively applied". Detailed instructions added to Manual.

2008 - 2011

2012

Net-Ready KPP Elements
CJCSI 6212.01E, 15 Dec 2008*

1. Compliant Solution Architecture
2. Compliance with Net-Centric Data & Services Strategies
3. Compliance with Applicable Global Information Grid (GIG) Technical Guidance (GTG)
4. Compliance with DOD Information Assurance (IA) Requirements
5. Compliance with Supportability Requirements to Include Spectrum Utilization & Information Bandwidth Requirements, Selective Availability Anti-Spoofing Module (SAASM) & the Joint Tactical Radio System (JTRS), as Applicable

Net-Ready KPP Attributes
JCIDS Manual, 19 Jan 2012)

1. Supports Military Operations
2. Is Entered and Managed on the Network, and
3. Effectively Exchanges Information

Three-Step Development Process

Step 1. Mission Analysis – Determines Attribute Details for Supports Military Operations

Step 2. Information Analysis – Determines Attribute Details for Entered & Managed on the Network, and Effectively Exchanges Information

Step 3. Systems Engineering & all 3

New CJCSI 6212.01F, Interoperability, pending signature – will reflect these changes

ome charts have additiona

NR-KPP Attribute	Key Performance Parameter	Threshold	Objective
Support to military operations	Mission: Tracking and locating (Finding, Fixing, Finishing) High-Value Target (HVT)		
	Measure: Timely, actionable dissemination of acquisition data for HVT	10 minutes	Near-real-time
	Conditions: Targeting quality data to the neutralizing/ tracking entity	Area denial of HVT activities	HVT tracked, neutralized
	Mission Activities: Find HVT		
	Measure: Location accuracy	100 meter circle	25 meter circle
	Conditions: Individual differentiation	Identify armed/ not armed	Identify individual

NR-KPP Attribute	Key Performance Parameter	Threshold	Objective
Enter and be managed in the network	Network: SIPRNET		
	Measure: Time to connect to an operational network from power up	2 minutes	1 minute
	Conditions: Network connectivity	99.8	99.9
	Network: NIPRNET		
	Measure: Time to connect to an operational network from power up	2 minutes	1 minute
	Conditions: Network connectivity	99.8	99.9

NR-KPP Attribute	Key Performance Parameter	Threshold	Objective
Exchange information	Information Element: Target Data	10 seconds	5 seconds
	Measure: Dissemination of HVT biographic and physical data		
	Measure: Receipt of HVT data	Line of Sight (LOS)	Beyond LOS
		5 seconds	2 seconds
	Measure: Latency of data	NSA certified type 1	NSA certified type 1
	Measure: Strength of encryption	Permissive environment	Non-permissive environment
	Conditions: Tactical/Geopolitical		

CJCSI 6212.01E, Dec 2008

DoDAF 1.5, 2007

JCIDS Manual, Jan 2012

DoDAF 2.02, 2010

CJCSI 6212.01E

ICD	CDD	CPD
OV-1	AV-1	AV-1
	AV-2	AV-2
	OV-1	OV-1
	OV-2	OV-2
	OV-3	OV-3
	OV-4	OV-4
	OV-5	OV-5
	OV-6c	OV-6c
	SV-2	OV-7
	SV-4	SV-2
	SV-5	SV-4
	SV-6	SV-5
	TV-1	SV-6
	TV-2	SV-11
		TV-1
		TV-2

JCIDS Manual

ICD	CDD		CPD	
AV-1	AV-1	SV-1 or SvcV-1	AV-1	SV-1 or SvcV-1
AV-2	AV-2	SV-2 or SvcV-2	AV-2	SV-2 or SvcV-2
CV-2	CV-1	SV-4 or SvcV-4	CV-1	SV-4 or SvcV-4
CV-6	CV-2	SV-5a or SvcV-5	CV-2	SV-5a or SvcV-5
OV-1	CV-3	SV-6 or SvcV-6	CV-3	SV-6 or SvcV-6
OV-2	CV-4	SV-7 or SvcV-7	CV-4	SV-7 or SvcV-7
OV-4	CV-5	StdV-1 (TV-1)	CV-5	StdV-1 (TV-1)
OV-5a	CV-6	StdV-2 (TV-2)	CV-6	StdV-2 (TV-2)
	DIV-2		DIV-2	
	OV-1		DIV-3	
	OV-2		OV-1	
	OV-3		OV-2	
	OV-4		OV-3	
	OV-5a		OV-4	
	OV-5b		OV-5a	
	OV-6c		OV-5b	
	PV-2		OV-6c	
			PV-2	

- **All Viewpoint (AV):**

  AV-1, Overview & Summary

  AV-2, Dictionary of Terms

- **Capability Viewpoint (CV)**

  CV-1, Vision

  CV-2, Capability Taxonomy

  CV-3, Capability Phasing

  CV-4, Capability Dependencies

  CV-5, Capability to Organizational Development Mapping

  CV-6, Capability to Operational Activities Mapping

- **Data & Information Viewpoint (DIV)**

  DIV-1, Conceptual Data Model

  DIV-2, Logical Data Model

  DIV-3, Physical Data Model

	ICD	CDD	CPD
AV-1	X	X	X
AV-2	X	X	X
CV-1	R	X	X
CV-2	X	X	X
CV-3	R	X	X
CV-4	R	X	X
CV-5		X	X
CV-6	X	X	X
DIV-2		X	X
DIV-3			X

R = Recommended **Blue = New**

Program Responsibility	JCIDS Sponsor Responsibility	Joint Program/Sponsor Responsibility

- **Operational Viewpoint (OV):**

  OV-1, High-level Operational Concept Graphic

  OV-2, Operational Resource Flow Description

  OV-3, Operational Resource Flow Matrix

  OV-4, Organizational Relationships Chart

  OV-5a, Operational Activity Decomposition Tree

  OV-5b, Operational Activity Model

  OV-6a, Operational Rules Model

  OV-6c, Event-Trace Description

- **Project Viewpoint (PV)**

  PV-2, Project Timelines

	ICD	CDD	CPD
OV-1	X	X	X
OV-2	**X**	X	X
OV-3		X	X
OV-4	**X**	X	X
OV-5a		X	X
OV-5b	*O*	**X**	**X**
OV-6a		**X**	**X**
OV-6c	**X**	X	X
PV-2		**X**	

O = Optional   **Blue = New**

Program Responsibility	JCIDS Sponsor Responsibility

- Systems Viewpoint (SV):

  SV-1, Systems Interface Description

  SV-2, Systems Resource Flow Description

  SV-3, Systems-Systems Matrix

  SV-4, Systems Functionally Description

  SV-5a, Operational Activity to Systems Function Traceability Matrix

  SV-6, Systems Resource Flow Matrix

  SV-7, Systems Measures Matrix

- Services Viewpoint (SvcV)

  SvcV-1, Services Context Description

  SvcV-2, Services Resources Flow Description

  SvcV-4, Services Functionality Description

  SvcV-5, Operational Activity to Services Traceability Matrix

  SvcV-6, Services Resource Flow Ma

  SvcV-7, Services Measures Matrix

- Standards Viewpoint (StdV)

	ICD	CDD	CPD
SV-1 or SvcV-1	**X**	**X**	**X**
SV-2 or SvcV-2	**X**	X	X
SV-4 or SvcV-4		X	X
SV-5a or SvcV-5	**X**	X	X
SV-6 or SvcV-6	**X**	X	X
SV-7 or SvcV-7	*R*	X	X
StdV-1 (TV-1)		X	X
StdV-2 (TV-1)		X	X

R = Recommended   **Blue = New**

Program Responsibility   **Joint Program/Sponsor Responsibility**

JCIDS Sponsor Responsibility

- IS ICDs Implement the "Information Technology (IT) Box" Model
- IS ICDs are Required When the Solution Requires Research and Development, and Acquisition of Applications with a Projected Software Development Cost of Over $15 Million
- Not Used for Software Embedded as a Subset of a Capability Solution Developed IAW Other Validated JCIDS Documents
- IS ICD Applies to:

    Commercial off the Shelf (COTS)/Government off the Shelf (GOTS) software, and associated hardware without modification

    Commercial capability solutions with integrated, DoD-specific performance standards

    Additional production or modification of previously developed U.S and/or Allied or interagency systems or equipment

    Development, integration, and acquisition of customized application software

"IT Box" model calls for fewer iterations of validating documents through the JCIDS process by describing the overall IS program in the IS ICD, and delegating validation of detailed follow-on requirement and solution oversight to a flag-level organization other than the JROC or JCB.

- CDDs & CPDs are Not Required as Successor Documents; Sponsors Have Management Flexibility for Alternate Documents

- JCIDS Manual Provides Examples of Potential IS ICD Follow-On Documents (Actual Names, Content, and Approval TBD by the Delegated Validation Authority):

  Requirements Definition Package (RDP) – identifies KPPs and non-materiel changes

  Capability Drop (CD) – lower level document that specifies the characteristics of a "widget" or "app" for partial deployment of the solution

- FCB is Briefed Every 2nd Year After Validation on Progress Toward Delivering the Solution (May Recommend JROC

Business IS are not normally subject to JROC Review – However, FCBs have visibility of business case documents posted to KM/DS and if FCB decides the system has "joint equities" can recommend joint oversight.

- **Three Processes** – deliberate, urgent, emergent
- **JCIDS Documents** – ICD, CDD, CPD, DCR page count restricted.
- **Information Systems ICD** – new document supports IT Box; does not require CDD/CPD follow-on.
- **Cost Tables** – required for IS ICD, CDD, CPD and DCR.
- **Staffing** – streamlined. Deliberate (83 days) & urgent/emergent (15/31 days).
- **Role of FCB Strengthened** – FCB Chair briefs JROC, not the JCIDS Sponsor and not the PM. FCB will review AoA results.
- **Prioritization** – new process. FCBs will prioritize capability requirements within their portfolios – input from the Sponsor will not be considered.
- **KPPs** – six "mandatory" (Force protection, survivability, sustainment, net-ready (major changes), training, and energy). If not used, must justify why not.
- **Draft CDD Required for TD Phase** – Component level; not submitted to KM/DS.
- **Affordability** – cost considered in document review and validation